

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/580,752
Source: IFWP
Date Processed by STIC: 6/7/06

ENTERED



IFWP

RAW SEQUENCE LISTING

DATE: 06/07/2006

PATENT APPLICATION: US/10/580,752

TIME: 11:12:17

Input Set : F:\V4704G-PCT-Seq list.txt

Output Set: N:\CRF4\06072006\J580752.raw

4 <110> APPLICANT: Verdia, Inc.
 5 Pioneer Hi-Bred International Inc.
 7 <120> TITLE OF INVENTION: AP1 AMINE OXIDASE VARIANTS
 9 <130> FILE REFERENCE: 54916-20002.41
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/580,752
 C--> 12 <141> CURRENT FILING DATE: 2006-05-22
 14 <150> PRIOR APPLICATION NUMBER: 60/401,629
 15 <151> PRIOR FILING DATE: 2002-08-06
 17 <150> PRIOR APPLICATION NUMBER: 60/478,188
 18 <151> PRIOR FILING DATE: 2003-06-13
 20 <160> NUMBER OF SEQ ID NOS: 127
 22 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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 25 <211> LENGTH: 1803
 26 <212> TYPE: DNA
 27 <213> ORGANISM: Artificial Sequence
 29 <220> FEATURE:
 30 <223> OTHER INFORMATION: Synthetic Construct Clone A5
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 35 gacgctttgg gcgtgacaga ccctgcctac gagaaacagg ttgcccaagc attcgccaat 180
 36 ctgacgagctt gtcttgctgc agttggagcc acttcaaacg acgtcaccaa gctcaattac 240
 37 tacatcgtcg actacgcccc gagcaaactc accgcaattg gagatgggct gaaggctacc 300
 38 tttgcccttg acaggctccc tccttgacg ctggtgccag tgccggccct ggcttcacct 360
 39 gaatacctct ttgaggttga tgccacggcg ctggtgccgg gacacacgac ccagacaac 420
 40 gttgcggacg tggtcgtggt gggcgctggc ttgagcgggt tggagacggc acgcaaagtc 480
 41 caggctgccg ggctgtcctg cctcgttctt gaggcgatgg atcgtgtggg gggaaagact 540
 42 ctgagcgtac aatcgggtcc cggcaggacg actatcaacg acctcggcgc tgcgtggatc 600
 43 aatgacagca accaaagcga agtatccaga ttgtttgaaa gatttcatct ggagggcgag 660
 44 ctccagagga cgatcggaat ttcaatccat caagcacaag acggtacaac cactacagct 720
 45 ccttatggtg attccttgct gagcgaggag gttgcaagt cacttgcgga actcctcccc 780
 46 gtatggtctc agctgatcga agagcatagt cttgaagacc ccaaggcgag ccctcaggcg 840
 47 aagcggctcg acagtgtgag cttcgcgcac tactgtgaga aggacctaaa cttgcctgct 900
 48 gttctcggcg tggcaaacca gatcacacgc gctctgctcg gtgtggaagc ccacgagatc 960
 49 agcatgcttt ttctcaccga ctacgtcaag agtgccaccg gtctcagtaa tattttctcg 1020
 50 gacaagaaag acggcgggca gtatatgcga tgcaaaacag gtatgcagtc gctttgccat 1080
 51 gccatgtcaa aggaacttgt tccaggctca gtgcacctca acacccccgt cgctgaaatt 1140
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 53 aagtggttgg tttcgttacc gacaaccttg tatcccacct tgacattttc accacctctt 1260
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 55 ttcgtatggg acaagccgtg gtggcgcgaa caaggcttct cgggcgtcct ccaatcgagc 1380
 56 tgtgaccca tctcatttgc cagagatacc agcatcgaag tcgatcggca atgggtccatt 1440

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58 caaaagtctg tctgggacca actccgcgca gcctacgaga acgccggggc ccaagtccca 1560
59 gagccggcca acgtgctcga gatcgagtgg tcgaagcagc agtatttcca aggagctccg 1620
60 agcgccgtct atgggctgaa cgatctcatc aactgggtt cggcgctcag aacgccgttc 1680
61 aagggtgttc atttcgttgg aacggagacg tcttttagttt ggaaagggta tatggaaggg 1740
62 gccatacgat cgggtcaacg aggtgctgca gaagttgtgg ctagcctggt gccagcagca 1800
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67 <212> TYPE: DNA
68 <213> ORGANISM: Artificial Sequence
70 <220> FEATURE:
71 <223> OTHER INFORMATION: Synthetic Construct Clone D5
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97 tgtgacccca tctcatttgc cagagatacc agcatcgaag tcgatcggca atggtccatt 1440
98 acctgtttca tggtcggaga cccgggacgg aagtgggtccc aacagtccaa gcaggtacga 1500
99 caaaagtctg tctgggacca actccgcgca gcctacgaga acgccggggc ccaagtccca 1560
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101 agcgccgtct atgggctgaa cgatctcatc aactgggtt cggcgctcag aacgccgttc 1680
102 aagggtgttc atttcgttgg aacggagacg tctttggttt ggaaagggta tatggaaggg 1740
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104 tag 1803
106 <210> SEQ ID NO: 3
107 <211> LENGTH: 1803
108 <212> TYPE: DNA
109 <213> ORGANISM: Artificial Sequence

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111 <220> FEATURE:

112 <223> OTHER INFORMATION: Synthetic Construct Clone F7

114 <400> SEQUENCE: 3

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117 gacgcttcgg ccgtgacaga ccctgcctac gagaaacagg ttgcccagc attcgccaac 180
118 ctgcgagctt gccttgctgc agttggagcc acttcaaacg acgtcaccaa gctcaattac 240
119 tacatcgtcg actacgcccc gagcaaaactc accgcaattg gagatgggct gaaggctacc 300
120 tttgcccttg acaggctccc tccttgccag ctggtgccag tgcggcctt ggcttcacct 360
121 gaatacctct ttgaggttga tgccacggcg ctggttccag gacactcaac cccagacaac 420
122 gttgcggacg tggctcgtggg gggcgctggc ttgagcgggt tggagacggc acgcaaagtc 480
123 caggctgccg ggctgtcctg cctcgttctt gaggcgatgg atcgtgtagg gggaaagact 540
124 ctgagcgtac aatcgggtcc cggcaggacg actatcaacg acctcggcgc tgcgtggatc 600
125 aatgacagca accaaagcga agtattcaaa ttatttgaag gatttcattt ggaggcgcat 660
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128 gcatggtctc agctgatcga agagcatagt cttgaagacc ccaaggcgag ccctcaggcg 840
129 aagcggctcg acagtgtgag cttcgcacac tactgtgaga aggatctaaa cttgcctgct 900
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138 tgtgaccca tcttatattg cagagatacc agcatcgaag tcgatcggca atggtccatt 1440
139 acctgtttca tggctcggaga cccgggacgg aagtggctcc aacagtccaa gcaggtacga 1500
140 caaaagtctg tctgggacca actccgcgca gcctacgaga acgccggggc ccaagtccca 1560
141 gagccggcca acgtgctcga gatcagatgg tccaagcagc agtatttcca aggagctccg 1620
142 agcgccgtct atgggtgaa cgatctcatc acatgggtt cggcgctcag aacgccgttc 1680
143 aaggggtgtt atttcgttgg aacggagacg tctttggtt ggaaaaggta tatggaaggg 1740
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147 <210> SEQ ID NO: 4

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149 <212> TYPE: DNA

150 <213> ORGANISM: Artificial Sequence

152 <220> FEATURE:

153 <223> OTHER INFORMATION: Synthetic Construct Clone F12

155 <400> SEQUENCE: 4

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157 cacgtcggcg taggcccaga cggagggagg tatgcgacaa tagctggaca gattggacaa 120
158 gacgcttcgg ccgtgacaga ccctgcctac gagaaacagg ttgcccagc attcgccaac 180
159 ctgcgagctt gccttgctgc agttggagcc tcttcaaacg acgtcaccaa gctcaattac 240
160 tacatcgtcg actacgcccc gagcaaaactc accgcaattg gagatgggct gaaggctacc 300
161 tttgcccttg acaggctccc tccttgccag ctggtgccag tgcggcctt gtcttcacct 360
162 gaatacctct ttgaggttga tgctacggcg ctggttccag gacactcaac cccagacaac 420
163 gttgcggacg tggctcgtggg gggcgctggc ttgagcgggt tggagacggc acgcaaagtc 480

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166 aatgacagca accaaagcga agtattcaaa ttatttgaaa gatttcattt ggagggcgag 660
167 ctccagagga cgaccggaat ttcaatccat caagcacaag acggtacaat cactacagct 720
168 ccttatgggtg actccttgct gagcgaggag gttgcaagt cactcgcgga actccttccc 780
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176 aaggtggtgg ttctgttacc gacaaccttg tatcccacct tgacattttc accacctctc 1260
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181 cagaagtctg tctggaacca actccgcgca gcctacgaga acgcccgggc ccaagtccca 1560
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183 agcgcctctc atgggctgaa cgatctcatc acactgggtt cggcgctcag aacgccgttc 1680
184 aagtgtgttc atttcgttgg aacggagacg tctttagttt ggaaagggta tatggaagg 1740
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218 cccgccgaga agcaagcatt ggcggaaaat tctatcctgg gctactatag caagatagtc 1320
219 ttctgatggg acaaccctgt gtggcgcgaa caaggcttct cgggcgttct ccaatcgagc 1380
220 tgtgacccca tctcatttgc cagagatacc agcatcgaag tcgatcggca atggtccatt 1440
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222 caaaagtctg tctgggacca actccgcgca gcctacgaga acgcccgggc ccaagtccca 1560
223 gagccggcca acgtgctcga gatcgagtgg tcgaagcagc agtatttcca aggagctccg 1620
224 agcgccgtct atgggctgaa cgatctcatc acactgggtt cggcgctcag aacgccgttc 1680
225 aagtgtgttc atttcgttgg aacggagacg tctttggttt ggaaagggtg tatggaaggg 1740
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263 caaaagtctg tctggaacca actccgcgca gcctacgaga acgctggggc ccaagtccca 1560
264 gagccggcca acgtgctcga gatcgagtgg tcgaagcagc agtatttcca aggagctccg 1620
265 agcgccgtct atgggctgaa cgatctcatc acactgggtt cggcgctcag aacgccgttc 1680
266 aagagtgttc atttcgttgg aacggagacg tctttagttt ggaaagggtg tatggaaggg 1740
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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Seq#:58; Xaa Pos. 217
Seq#:59; N Pos. 643,648
Seq#:60; Xaa Pos. 215,216
Seq#:61; N Pos. 555,560,625,732,786,883,896,1134,1207,1213,1225,1227
Seq#:62; Xaa Pos. 187,209,244,262,295,299,403,405,409
Seq#:63; N Pos. 37,1134,1207,1210,1256,1297,1329,1433,1465,1512,1533,1612
Seq#:64; Xaa Pos. 13,378,403,404,419,433,443,478,489,504,511,538

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TIME: 11:12:18

Input Set : F:\V4704G-PCT-Seq list.txt

Output Set: N:\CRF4\06072006\J580752.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:3475 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:600
L:3534 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:208
L:3600 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:59
L:3611 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:600
L:3647 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:60
L:3674 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:208
L:3740 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61
L:3744 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61
L:3748 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61
L:3752 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61
L:3757 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61
L:3761 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61
L:3765 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61
L:3769 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61
L:3773 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61
L:3777 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61
L:3781 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61
L:3791 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:540
M:341 Repeated in SeqNo=61
L:3828 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:62
L:3832 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:62
L:3836 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:62
L:3840 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:62
L:3844 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:62
L:3848 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:62
L:3852 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:62
L:3856 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:62
L:3879 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:176
M:341 Repeated in SeqNo=62
L:3949 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
L:3953 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
L:3957 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
L:3961 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
L:3965 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
L:3969 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
L:3973 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
L:3977 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
L:3981 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
L:3985 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
L:3989 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
L:3990 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0
M:341 Repeated in SeqNo=63
L:4036 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:64
L:4040 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:64
L:4044 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:64
L:4048 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:64

VERIFICATION SUMMARY

DATE: 06/07/2006

PATENT APPLICATION: US/10/580,752

TIME: 11:12:18

Input Set : F:\V4704G-PCT-Seq list.txt

Output Set: N:\CRF4\06072006\J580752.raw

L:4052 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:64
L:4056 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:64
L:4060 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:64
L:4064 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:64
L:4065 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:0
M:341 Repeated in SeqNo=64
L:4771 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:4774 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:84
L:4970 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:4973 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:86
L:5169 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:5172 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:88
L:5368 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:5371 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:90
L:5567 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:5570 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:92
L:5766 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:5769 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:94
L:5965 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:5968 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:96
L:6164 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6167 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:98
L:6363 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6366 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:100
L:6562 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6565 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:102
L:6761 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:6960 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:7159 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:7358 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:7557 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:7756 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:7955 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:8154 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:8353 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:8552 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:8751 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:8950 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!